Fig. 19A shows the structure of a passive matrix light emitting device. Reference numeral 805 denotes a pixel portion, which has a plurality of pixels 806. Each pixel has one of plural data lines 803 and one of plural scanning lines 804. EL layers are formed between the data lines 803 and the scanning lines 804. The data lines 803 and the scanning lines 804 serve as electrodes. The EL layers and the electrodes constitute EL elements 807.

Signals to be inputted to the data lines 803 are controlled by a data line driving circuit 801, and signals to be inputted to the scanning lines 804 are controlled by a scanning line driving circuit 802.

Fig. 19B shows the voltage level of signals inputted to the scanning lines 804 and the data lines 803 when the repairing method of the present invention is applied. By changing the voltage of the data lines at given time intervals while keeping the voltage of the scanning lines 804 constant, a reverse bias current is caused to flow into the EL elements 807 at given time intervals.

The defect portions of the EL elements 807 may be repaired at once in all of the pixels 805 of the pixel portion 806. Alternatively, the repair may be performed on one line of pixels at a time, or on one pixel at a time.

The method of the present invention can increase the amount of current actually flowing through the EL layer upon application of a forward bias voltage to the EL element even if a pin hole is formed in the EL layer during formation of the layer due to dusts or the like and two layers sandwiching a light emitting layer short-circuit, because the method can raise the resistance of the defect portion where the short circuit takes place by changing the defect portion into the transmuted portion. Therefore the repairing method of the present invention can raise the luminance of emitted light with application of the same level of voltage despite the presence of the defect portion.

Having high resistance $R_{SC}$, the transmuted portion hardly allows a current to flow therein in contrast to the defect portion where there is always a flow of current to accelerate degradation of a part of the EL layer that surrounds the defect portion. Therefore, degradation is not accelerated in a part of the EL layer that surrounds the transmuted portion.

This embodiment may be combined freely with Embodiments 5 through 8, and Embodiment 12.

With the above structures, the method of the present invention can increase the amount of current actually flowing through the EL layer upon application of a forward bias voltage to the EL element even if a pin hole is formed in the EL layer during formation of the layer due to dusts or the like and two layers sandwiching a light emitting layer short-circuit, because the method can raise the resistance of the defect portion where the short circuit takes place by changing the defect portion into the transmuted portion. Therefore the repairing method of the present invention can raise the luminance of emitted light with application of the same level of voltage despite the presence of the defect portion.

Having high resistance $R_{SC}$, the transmuted portion hardly allows a current to flow therein in contrast to the defect portion where there is always a flow of current to accelerate degradation of a part of the EL layer that surrounds the defect portion. Therefore, degradation is not accelerated in a part of the EL layer that surrounds the transmuted portion.